Advanced Multi-Spectral Sensor & Subsystem Test Capabilities (AMSSTC)

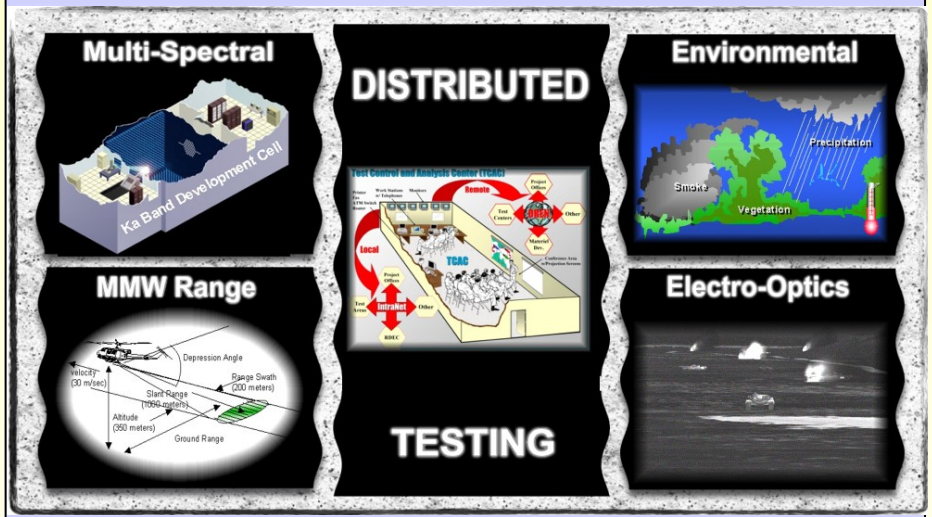
PM ITTS STOC Industry Conference

20 March 2002

Nikki Bui

STRICOM PM ITTS - IMO

AMSSTC Overview



CUSTOMER/ USERS

- Customer -
  - Redstone Technical Test Center (RTTC)
- Users -
  - Common Missile
  - Tank Extended Range Munition - KE
  - BAT P3I
  - Improved Target Acquisition System
  - Unmanned Ground Vehicle

Description

The AMSSTC program will develop and advance Redstone Technical Test Center subsystem test and simulation capabilities by providing a Multi-Spectral Missile Life Cycle Test capability, a Millimeter Wave (MMW) range characterization capability with high fidelity correlated MMW terrain models, enhancement of in-band sensor stimulators for testing multi-spectral sensors, and advanced environmental testing and simulation. These capabilities will be connected by an enhanced, high bandwidth data transfer network to

Team

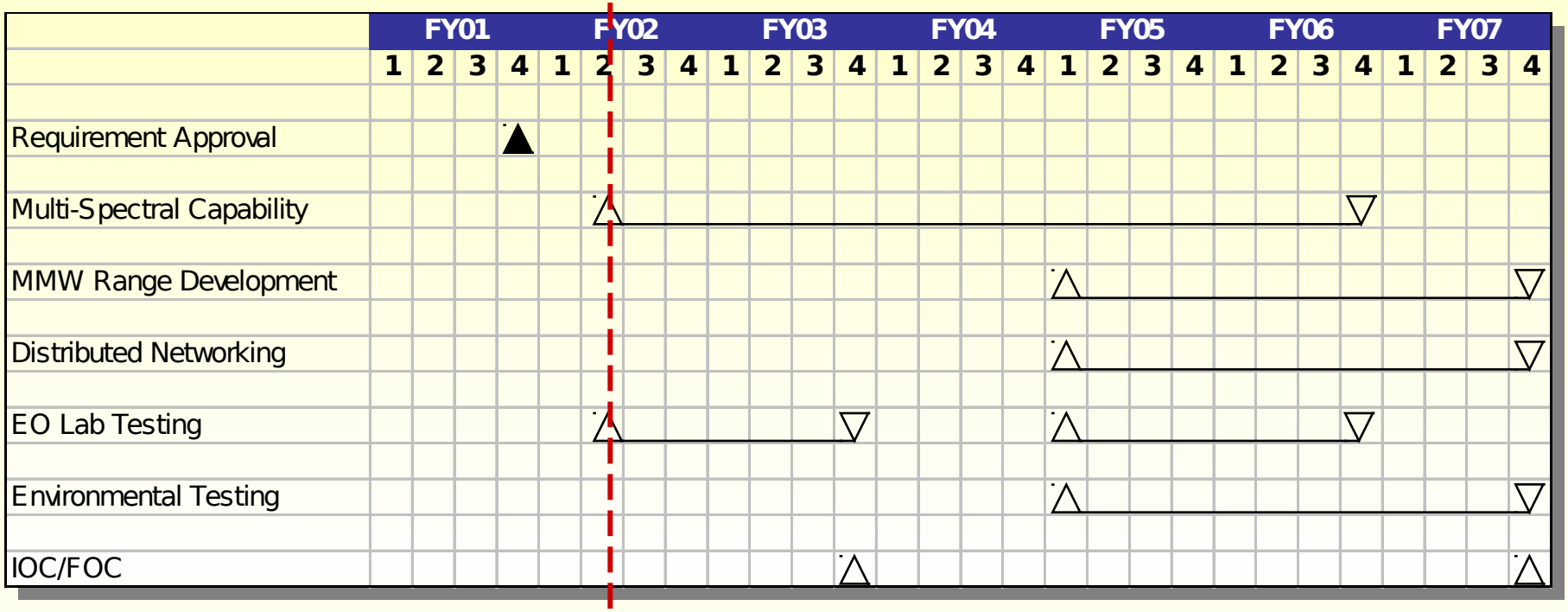
- **Program Director - Nikki Bui - IMO**
- **Technical Director - David Byrd - RTTC**
- **Lead Engineer - Cisca Vuong - E Dir**
- **Contract Specialist - Felix Marrero - Navy**

Acquisition/Contracting

Strategy

- Multiple awards via task orders
  - STOC
  - Small business set aside
  - GSA
  - Sole source
- Most elements will be integrated by RTTC
- Most elements are medium to low risk, non-developmental items
- Development: FY02-07, Operation: FY05-FY26

Program Schedule/Funding



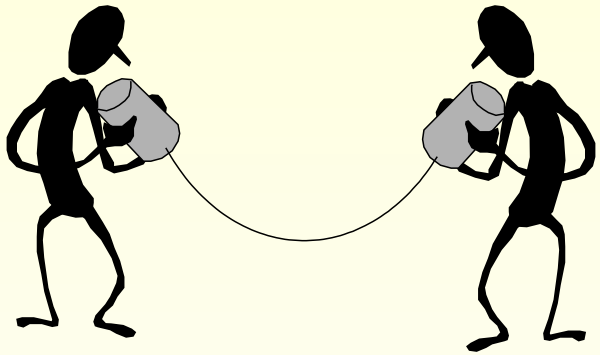
Dollars in Thousands	Prior	2001	2002	2003	2004	2005	2006	2007	Complete
Total Required	0	$	$	$$	$$$$	$$$$	$$$$	$	$$$$
RDTE Funded (D084)	0	0	$	$$	$$$$	$$$$	$$$$	$	0
RDTE Funded (PEO TM)	0	$	0	0	0	0	0	0	0
Total Unfunded	0	0	0	0	0	0	0	0	0
Quantities	0	0	0	0	0	0	0	1	1

SUMMARY

- **Main focus during FY02-04 is on facility installation and equipment purchase**
- **Competitive awards not expected until FY05**
- **AMSSTC will provide the T&E community with enhanced subsystem test capabilities**

Points of Contact

Nikki Bui
Project Director
(407)384-5245
Nicole_Bui@stricom.army.mil



Felix Marrero
Contract Specialist
(407)380-4735
Felix_Marrero@stricom.army.mil

Back-up

Acronyms

AMSSTC	Advanced Multi-Spectral Sensor Stimulation Test Capabilities
APAI	Advanced Planning Acquisition Info
AUR	All-Up-Round
DEGA	DIRSP Engineering Grade Array
DIRSP	Dynamic Infrared Scene Projector
DREN	Defense Research and Engineering Network
ELRF	Eyesafe Laser Rangefinder
EO	Electro-Optical
EOSFEL	Electro-Optical System Flight Evaluation Laboratory
EOTASEL	Electro-Optical Target Acquisition System Evaluation Lab
FLIR	Forward Looking Infrared
HPC	High Performance Computer
HWIL	Hardware-In-The-loop
IR	Infrared
LWIR	Long-Wave Infrared
MMW	Millimeter Wave
MWIR	Mid-Wave Infrared
RTTC	Redstone Technical Test Center
SAR	Synthetic Aperture Radar
STAF	Simulation/Test Acceptance Facility
STOC	STRICOM Omnibus Contract
WISP	Wide-band Infrared Scene Projector

Overview

- A Multi-Spectral test capability will be developed to test seeker and AUR level MMW/IR/Laser Sensors in a HWIL environment
- Virtual Range currently replicates IR and visible spectrums, AMSSTC will add the MMW spectrum
- Distributed testing of subsystems will be enhanced to link the AMSSTC capabilities, existing RTTC capabilities, and other agency capabilities
- Electro-Optics subsystem testing will be enhanced for LWIR, MWIR, Visible, and ELRF applications
- Dynamic combined environmental effects testing will be developed with links to subsystem HWIL capabilities